Bladder Catheterization

SSG Warnack

Terminal Learning Objective

- Given the appropriate manikins and the necessary supplies and equipment perform catheterization and removal of a catheter on both a male and female manikin. IAW cited references.

Urinary Catheterization

- **Definition: Insertion of a catheter (tube for injecting or removing fluids) through the urethra into the bladder for the purpose of removing urine**

Purposes of Urinary Catheterization

- Relieve urinary retention
- Obtain sterile urine specimen from female
- Measure amount of residual urine in bladder (an amount greater than 50 ml is considered abnormal)
- Empty bladder before, during, and after surgery
- To obtain a urine specimen when a specimen cannot be obtained by any other means

Catheter Sizes

- The smaller the number, the smaller the catheter
- No. 8 fr and 10 fr; commonly used for children
- No. 14 fr and 16 fr; commonly used for female adults
- No. 18 fr and 20 fr and 22 fr; usually used for male adults

Types of Catheters

- Non-retention catheters
  - Used to drain the bladder for short periods (5-10 min)
  - May be inserted by patient
  - Commonly used with spinal cord injury patients

Retention catheters

- **Purpose:**
  - **Continuous bladder drainage**
  - **Gradual decompression of over-distended bladder**
  - **Intermittent bladder drainage and irrigation**

Retention Catheters con't

- Drainage tube and collection device connected to this type of catheter
- Mostly commonly used retention catheter is a Foley catheter
  - Designed with balloon at distal tip which can be inflated with sterile water or saline
  - Inflated balloon keeps catheter from slipping out of the bladder

Supra pubic catheter

- Inserted into bladder through small incision above pubic area

Procedure for the insertion

- Gather all equipment and wash hands
  - Sterile Catheterization kit
  - Flashlight light or lamp
  - Urine collection bag
  - Velcro leg strap or tape
  - Disposal bag
  - Waterproof pad or chux

Procedure con't

- Explain the procedure to patient and advise that he or she may experience a burning/pressure sensation as the catheter is inserted, and a feeling of need to void, once catheter is in place.
- Provide for adequate lighting

Procedure con't

- Provide for privacy
- Position patient:
  - Males - Assist patient into supine position with his thighs slightly apart. Drape patient so only the penis and the surrounding areas are exposed. Place waterproof pad under patient's buttocks.

More on Procedure

- Females – Assist Patient to dorsal recumbent position with knees flexed and about 2 feet apart. Females may also be positioned in the Sim's or lateral position with upper leg flexed. Place waterproof pad under patient.

Again more Procedure

- Cleanse genital and perineal areas with soap and water. Rinse and dry. Wash hands.
- Open sterile catheterization tray and supplies, using sterile technique
- Put on sterile gloves. Open sterile drape and place on patient's thighs. Place fenestrated drape with opening over penis (males) or labia (female).

Again Procedure con't

- Place catheter set on or next to the patient's legs on to sterile drape.
- For retention catheters, test catheter balloon:
  - Attach per-filled irrigation syringe to injection port
  - Inject appropriate amount of fluid
  - If balloon inflates properly, withdraw fluid and leave syringe attached to port

Procedure con't

- Pour antiseptic solution over cotton balls
- Lubricate catheter for about 6 to 7 inches (males) or 1to 2 inches (females).

Insertion for males

- Lift the penis with non-dominant hand, which is then considered to be contaminated
- Retract foreskin in uncircumcised male
- Cleanse area at meatus with a cotton ball that is held with forceps
- Use circular motion, moving from meatus toward the base of the penis for the cleansing

Males con't

- Hold the penis with slight upward tension and perpendicular to patient's body
- Instruct the patient to bear down as if voiding
- With the dominant hand, place drainage end of catheter into receptacle (if pre-attached to drainage bag, place bag close to sterile field)
- Insert catheter into the meatus

More Males Con't

- Advance tip 6 to 8 inches or until urine flows
- Do not use force to introduce catheter
- For slight resistance, ask client to take a deep breath and rotate catheter slightly
- Once urine drains, advance catheter another ½ to 1 inch

Insertion for Females

- With thumb and one finger of non-dominant hand, spread labia and identify meatus. Maintain separation of labia with one hand until urine is flowing freely
- Using cotton balls held with forceps, cleanse both labia folds and directly over meatus, moving from the top of the meatus to the bottom towards the rectum in a downward motion.

Females con't

- With uncontaminated-glove hand, place drainage end of the catheter into receptacle. (If pre-attached to drainage bag, place bag close to sterile field)
- Insert catheter tip into meatus 2 to 3 inches or until urine flows
- For slight resistance, ask client to take a deep breath and rotate catheter gently as it reaches external sphincter

Again More Female

- Once urine drains, advance catheter ½ to 1inch

Inflate the Balloon

- Tug gently on the catheter to feel for resistance
- Attach catheter to drainage system if required

More Procedure.

- Secure catheter to upper thigh (males and females) or lower abdomen with penis directed towards the patient's chest (males). Leave some slack in catheter to prevent tension
- Secure drainage bag below level of bladder. Check that tubing is not kinked and movement of side rails does not impede drainage

More on Insertion

- Cleanse and dry perineal area
- Remove equipment and make client comfortable
- Wash your hands

Recording

- Time of catheterization
- Amount of urine removed
- Description of urine
- Patient's reaction to procedure
- Patient's teaching and level of understanding

Removal of Catheter

- Assemble all equipment
  - 10cc syringe
  - Waterproof drape
  - Soap and water
  - Exam gloves
  - Privacy Drape

Removal con't

- Explain the procedure to the patient, and advice that he/she may feel a slight burning sensation during removal of the catheter and the first time or two that they void
- Provide privacy and assist female patient to a dorsal recumbent position, or the assist the male patient's to a supine position

More on Removal

- Place waterproof drape under patient's buttocks and provide a drape for client's privacy
- Wash hands and disposable gloves
- Remove securing tape on catheter
- Attach syringe to balloon valve and aspirate entire amount of water from balloon. Check size of balloon so you so you know how much fluid to remove

Again on Removal

- Encourage patient to take a deep breath and relax while gently removing per ward SOP. Wrap catheter in towel or disposable waterproof drape
- Clean the perineal area after the catheter is removed
- Remove gloves and wash hands

Removal con't

- Reposition patient comfortably
- Instruct patient to drink plenty of fluids, if appropriate. Record intake and output, and instruct patient regarding the need to void into bedpan or urinal
- Inform patient that it may take a while for bladder to reestablish voluntary control, and that an accident is not unusual

Removal con't

- Discard equipment and return it to appropriate area
- Record procedure, including the following:
  - Time of procedure
  - Description and amount of urine in drainage bag
  - Record all patient teaching accomplished and patient's level of understanding

Report unusual signs

- i.e.:
  - Discomfort
  - Bleeding
  - Change in vital signs
  - Increase in temperature
  - Strong odor

Practical Exercise

- You will do it

Questions